

REMARKS

Claims 1-24 are pending in the application. Claims 1, 17, 21, and 24 have been amended herein. New claims 25 and 26 have added herein. Favorable reconsideration of the application, as amended, is respectfully requested.

I. OBJECTION TO SPECIFICATION

The specification stands objected to due to language and format of the abstract. The abstract has been amended to address the Examiner's concerns. Withdrawal of the objection is respectfully requested.

II. REJECTIONS OF CLAIMS 1-24 UNDER 35 U.S.C. § 102(b)

Claims 1-24 stand rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,812,791 ("Wasserman"). Claims 1-2, 5-13, 17-20, and 21-24 stand rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 6,084,637 ("Oku"). All pending claims are believed to be allowable for at least the following reasons. Withdrawal of the rejection is respectfully requested.

Independent claims 1, 17, 21, and 24 have been amended to further clarify pertinent features of the invention. Independent claim 1 recites "obtaining motion information related to the video data, the motion information comprising a set of motion vectors." Further, claim 1 now requires that (i) "identifying a reference sub-region based on at least the motion information," and (ii) "storing the reference sub-region identified by the motion information in a first memory . . ." All other rejected independent claims, i.e., claims 17, 21, and 24, contain recitations similar to those of claim 1 regarding the above-identified features (i) and (ii). These features were inherent in the originally filed claims. Thus, no new matter has been introduced by the amendments. It is believed that these amendments do not narrow the claim scope. The limitations were present in the previously submitted claims – albeit in different language.

None of the cited references, Wasserman and Oku, either alone or in combination, teach or suggest either of the above-identified features (i) and (ii). For example, the Wasserman patent fails to teach these claimed features. The Examiner cited column 10, lines 16-28 of Wasserman as describing "storing a reference sub-region identified by the motion information in a first memory . . ." (original claim 1). However, the cited portion of Wasserman merely describes data transfer through the video output DMA controller 180 to system memory 110. Such description regarding DMA data transfer has nothing to do with identifying a reference sub-region based on at least motion information.

Wasserman stores the whole image data in the system memory 110 via DMA controller 180. However, the Wasserman description fails to suggest storing a reference sub-region identified by motion information. Such bulk data transfer using a DMA controller is the opposite of the claimed feature, i.e., storing a reference sub-region identified by motion information. In view of the foregoing, Wasserman cannot be said to anticipate either of the claimed features (i) and (ii).

Regarding the Oku patent, as a preliminary matter, the Examiner has made no specific citations of the Oku specification to support his allegation. For example, with respect to the original claim 1 limitations (i.e., "storing a reference sub-region identified by the motion information in a first memory ..."), the Office Action merely refers to function blocks 6 (coded picture data write) and 11 (memory) in Fig. 1. Such broad reference to function blocks does not clarify why Oku is relevant to the claimed features. If the Examiner believes that relevant portions exist in the cited references, Applicants respectfully request that such portions be identified so that they can make a meaningful assessment of their impact on patentability.

Similar to the Wasserman system, the Oku system stores whole image data in the memory, and reads the data out. Specifically, the Oku patent describes reading out from the memory 11 by using motion vector information (see, column 9, lines 34-47). However, Oku is silent on, *inter alia*, storing a reference sub-region identified by the motion information as claimed. It is respectfully submitted that there is no suggestion in Oku about identifying by motion information when a reference sub-region is stored.

In summary, none of the cited references teach or suggest the above-identified features (i) and (ii). Therefore, independent claims 1, 17, 21, and 21, and their dependent claims are believed to be patentable over the cited art. Additionally, these dependent claims require additional features, some, but not all, of which have been highlighted above, that when considered in the context of the claimed inventions, further patentably distinguish the art of record.

In addition, neither Wasserman nor Oku teaches or suggests the feature of claim 2, i.e., "the first memory source is an on-chip memory." One goal of a specific embodiment of the invention is in improving motion compensation processing speed by storing a reference window (e.g., 112) in an on-chip memory. In order to achieve this, previously acquired motion vectors are utilized to identify multiple sub-regions that may be obtained and stored in an on-chip memory. Accessing to the on-chip memory during the motion compensation processing reduces the number of off-chip memory accesses, resulting in high speed processing. See, e.g., page 14, line 27 - page 15, line 26 of the present specification.

By contrast, both the Wasserman system and the Oku system uses a memory which is coupled via a bus. As is apparent to those skilled in the art, such a memory is generally referred

to as an "off-chip" memory, not an "on-chip" memory. Therefore, the references cannot be said to teach or suggest the on-chip configuration as recited in claim 2. As such, claim 2 is believed to be patentable over the cited art in this regard as well. Further, new claims 25 and 26 are believed to be patentable for at least the same reasons set forth above in connection with claim 2.

For at least the reasons set forth above, all pending claims are believed to be patentable over the cited art. Withdrawal of the rejections is respectfully requested.

III. CONCLUSION

Applicants believe that all pending claims are in condition for allowance, and respectfully request a Notice of Allowance at an early date. If the Examiner believes a telephone conference would expedite prosecution of this application, please telephone the undersigned at 510-843-6200, ext. 245.

Respectfully submitted,
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Limited Recognition under 37 CFR § 10.9(b)

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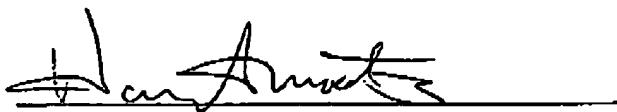
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Expires: August 28, 2004



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